REMARKS

This Application has been carefully reviewed in light of the Office Action mailed May 7, 2004. In order to advance prosecution of this case, Applicants amend Claims 1, 3, 6, 8-9, 12-14, and 16-21. Applicants respectfully request reconsideration and favorable action in this case.

Objections/Section 112 Rejections

The Office Action objected to, and/or rejected Claims 1, 3, 6, 9, 12-14, and 16-20 for various informalities and antecedent relationships. Applicants amend each such claim, as required by the Office Action. Applicants respectfully contend that Claims 1, 3, 6, 9, 12-14, and 16-20 are in proper form, and each include proper antecedent relationships.

The Office Action rejects Claim 14 under 35 U.S.C. §112, second paragraph, as "being incomplete for omitting essential steps, such omission amounting to a gap between the steps." *See Office Action*, page 3, paragraph 11. More specifically, the Office Action alleges that the omitted steps are the "readressing of the client internal IP address with the client external IP address." *Id.* Applicants respectfully traverse this rejection for the reasons discussed below.

A rejection under 35 U.S.C. §112, second paragraph, for omitting essential steps is proper if the claim "omits matter disclosed to be essential to the invention as described in the specification or in other statements of record." *See MPEP §2172.01*, citing *In re Mayhew*, 527 F.2d 1229. The Office Action fails to provide any support for the contention that any omitted steps were "disclosed to be essential to the invention as described in the specification or in other statements of record", as required to support a rejection under 35 U.S.C. §112, second paragraph. Applicants respectfully contend Claim 14 does not omit any "essential steps." If the Examiner intends to maintain this rejection, Applicants respectfully request that the Examiner cite the specific portion of the specification or other statements of record, in which Applicants allegedly disclosed such steps to be essential to the invention.

The Office Action rejects Claim 21 under 35 U.S.C. §112, second paragraph, as being indefinite for an alleged failure to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. More specifically, the Office Action indicates that it is unclear how a signal, computer storage medium, and modified dual channel command are related.

Applicants amended Claim 21 to remove any reference to computer storage medium. Applicants respectfully contend that amended Claim 21 makes clear that the signal comprises a modified dual channel command. Thus, the relationship between the signal and the dual channel command is provided. For at least these reasons, Applicants respectfully request that the rejection of Claim 21 under 35 U.S.C. §112, second paragraph, be withdrawn.

Section 101 Rejections

The Office Action rejects Claim 21 under 35 U.S.C. §101 and contends that the claimed invention is directed to non-statutory subject matter. More specifically, the Office Action contends that a "signal" is "none of a process, machine, manufacture, or composition of matter." *See Office Action*, page 4, paragraph 19. Applicants respectfully traverse this rejection for the reasons stated below.

It is a well settled principle of law, that a signal claim directed to a practical application of electromagnetic energy is statutory. *See MPEP 2106(IV)(B)(1)(c)*, page 2100-14, citing *O'Reilly v. Morse,* 56 U.S. 62. Therefore, Applicants respectfully request that the rejection of Claim 21 under 35 U.S.C. §101 be withdrawn.

Section 102 Rejections

The Office Action rejects Claim 14 under 35 U.S.C. §102(b), as being anticipated by *"Distributed Network Access Translation"*, by Borella et al. ("*Borella*"). Applicants respectfully traverse these rejections for the reasons stated below.

Claim 14 is directed to a method for establishing a data socket between a server and a client, that includes, among other things:

- encoding a port command including a client internal IP address and a client port number;
- generating a dual channel communication packet having a data payload including the encoded port command;
- decoding the port command; and

> • modifying the decoded port command by overriding the client internal
> IP address within the decoded port command with the client external
> IP address.

Borella does not disclose each of these limitations. Moreover, Applicants respectfully contend that *Borella* does not teach or suggest each of these limitations. In fact, *Borella* expressly teaches away from the invention of Claim 14.

Borella is directed to a method for distributed network address translation ("DNAT") that is proposed as an alternative to network address translation ("NAT"). According to *Borella*, DNAT is an alternative to NAT, that allegedly "eliminates all address and port translation at the router." *See Borella*, page 1, Abstract. Moreover, *Borella* indicates that "DNAT preserves the end-to-end nature of sessions by performing the address translation at the host, rather than at the router." *See Borella*, page 3, first full paragraph.

Borella indicates that a "major drawback of NAT is in handling applications that transmit IP addresses and/or port numbers as application data." *See Borella*, page 5, last full paragraph. The drawback is that "the IP address (and possibly the port number) within the payload need to be translated" which may change the length of the IP packet. *Id.* DNAT is proposed as an alternative to NAT, in which translation occurs at the local host, rather than at the DNAT router. Thus, the DNAT router does not translate the payload, and instead it follows a sequence of steps that include "look up local (destination) host in PTIP", and "add outer IP header with local host as destination and DNAT router's internal IP address as source..." *See Borella,* page 15, first figure.

Even assuming, arguendo, that the subnet host of *Borella* decodes a port command from the data payload, that includes a client internal IP address and a client port number (the suggestion of which Applicants contend is entirely absent from *Borella*), there is no disclosure, teaching or suggestion that the decoded port command is modified by overriding the client internal IP address within the decoded port command with a client external IP address retrieved from the header, as required by Claim 14. For at least these

reasons, Applicants respectfully contend that Claim 14 is patentably distinguishable from *Borella*.

Section 103 Rejections

The Office Action rejects Claims 1-4, 6-9 and 17-20 under 35 U.S.C. §103(a) as being unpatentable over *"Network Security Essentials, Applications and Standards"*, by Stallings (*"Stallings"*) in view of *"The IP Network Address Translator (NAT)"* by Egevang et al., (*"Egevang"*) in view of *"IP Security and NAT: Oil and Water?"* by Phifer (*"Phifer"*) in further view of *"Firewall-Friendly FTP"* (RFC 1579) by Bellovin (*"Bellovin"*). Applicants respectfully traverse these rejections for the reasons stated below.

Claim 1 is directed to a server that includes a communications module that is operable to receive a dual communication packet that includes a header, and a data payload having an encoded port command including a client internal IP address and a client data port number. The server also includes a codec that is operable to decode the port command, and a translation module that is operable to retrieve the client external IP address from the header, and to generate a modified port command including the external IP address. The server is operable to establish a second channel based on the modified port command. The portions of the references relied upon by the Office Action in rejecting Claim 1 do not disclose, teach or suggest each of these limitations.

The Office Action relies upon *Stallings* as disclosing a communication packet having a header, and a "data payload including a port command/original packet including a client internal IP address/source address (page 179, Fig. 6.9(b) & 180)." *See Office Action, page 6, paragraph 23.* However, there is no disclosure, teaching or suggestion in Stallings that a data payload includes an <u>encoded port command</u> having a <u>client internal IP address</u> and a <u>client data port number</u>, as required by Claim 1. If the Examiner intends to continue to rely upon *Stallings* as disclosing these limitations, Applicants respectfully request that the Examiner cite a specific page and line number of Stallings that discloses a data payload that includes an encoded port command having a client internal IP address and a client data port number.

Moreover, there is no reason to infer that the data payload (e.g., the encrypted transport layer segment) of *Stallings* should include a port command having an internal IP address and a client data port number, since *Stallings* does not contemplate establishing a second channel based upon the modified port command, as required by Claim 1. The Office Action concedes this point at Page 7, which indicates that "*Stallings*, as modified above, lacks a second channel being established...". For at least these reasons, Applicants respectfully contend that Claim 1 is patentably distinguishable from the portions of the references relied upon by the Office Action in rejecting Claim 1.

According to the Office Action, Claim 6 is rejected "under similar rationale" as Claim 1. However, Applicants respectfully contend that *Stallings* does not disclose, teach or suggest a communication packet having a header, and a data payload having an encoded port command having a server internal IP address and a server data port number. Therefore, Applicants respectfully contend that Claim 6 is also patentably distinguishable from the portions of the references relied upon by the Examiner in rejecting Claim 6.

Claim 17 is directed to a method for establishing a data socket between a server and a client that includes encoding a port command including a server private IP address and a server port number. A dual channel communication packet having a header and a data payload is created. The data payload includes the encoded port command. The references relied upon by the Examiner in rejecting Claim 17 do not disclose, teach, or suggest each of these limitations, either alone or in combination. As discussed above, *Stallings* does not disclose, teach, or suggest that a data payload of a communication packet includes an encoded port command that includes a server private IP address and a server port number, as suggested by the Office Action. For at least these reasons, Applicants respectfully contend that Claim 17 is patentably distinguishable from the references relied upon by the Examiner in rejecting Claim 17.

Claims 18 and 19 each depend from Claim 17. Therefore, Applicants respectfully contend that Claims 18 and 19 are each patentably distinguishable from the

references relied upon by the Examiner for example, for the same reasons discussed above with regard to Claim 17.

Applicants respectfully contend that the rejection of Claim 20 is improper, since the Office Action applies hindsight reconstruction to arrive at Applicants' invention, and provides no proper motivation to make the proposed combination. First of all, it is improper for an Examiner to use hindsight having read the Applicant's disclosure to arrive at an obviousness rejection. In re Fine, 837 F.2d 1071, 1075, 5 U.S.P.Q. 2d 1596, 1600 (Fed. Cir. 1988). It is also improper to use the claimed invention as an instruction manual or template to piece together the teachings of the prior art so that the claimed invention is rendered obvious. In re Fritch, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992).

There is no motivation to combine the teachings, as proposed by the Office Action. The MPEP sets forth a strict legal standard for finding obviousness based on a combination of references. According to the MPEP, "[o]bviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge [that was] generally available to one of ordinary skill in the art" at the time of the invention. MPEP 2143.01. The "fact that references <u>can</u> be combined or modified does not render the resultant combination [or modification] obvious unless the prior art also suggests the desirability of the combination" or modification. *Id.* (emphasis in original).

The governing Federal Circuit case law makes this strict legal standard even more clear.[1] According to the Federal Circuit, "a showing of a suggestion, teaching, or motivation to combine . . . prior art references is an essential component of an obviousness holding." *In re Sang-Su Lee*, 277 F.3d 1338, 1343 (Fed. Cir. 2002) (quoting *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25 (Fed. Cir. 2000)). "Evidence of a suggestion, teaching, or motivation . . . may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, the nature of

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[1] Note MPEP 2145 X.C. ("The Federal Circuit has produced a number of decisions overturning obviousness rejections due to a lack of suggestion in the prior art of the desirability of combining references.").

the problem to be solved." *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999). However, the "range of sources available . . . does not diminish the requirement for actual evidence." *Id.* In *In re Dembiczak*, the Federal Circuit reversed a finding of obviousness by the Board of Patent Appeals and Interferences, explaining that proper evidence of a teaching, suggestion, or motivation to combine is essential to avoid impermissible hindsight reconstruction of an applicant's invention:

> Our case law makes clear that the best defense against the subtle but powerful attraction of hind-sight obviousness analysis is *rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.* Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight.

175 F.3d at 999 (quoting *W.L. Gore & Assoc., Inv. v. Garlock, Inc.*, 721 F.2d 1540, 1553 (Fed. Cir. 1983)) (emphasis added) (citations omitted).[2]

The Office Action rejects Claims 5 and 10 under 35 U.S.C. §103(a) as being unpatentable over *Stallings*, *Egevang*, *Phifer* and *Bellovin*, as applied to Claims 1 and 6 above, and in further view of *"SMTP Service Extension for Secure SMTP over TLS"* (RFC 2487) by Hoffman ("*Hoffman*"). Applicants respectfully traverse these rejections for the reasons stated below.

Claims 5 and 10 depend from Claims 1 and 6, respectively. Therefore, Applicants respectfully contend that Claims 5 and 10 are each patentably distinguishable from the portions of the references relied upon by the Examiner in rejecting Claims 5 and 10 for example, for the same reasons discussed above with regard to their respective base claims.

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[2] *See also In Re Jones*, 958 F.2d 347, 351 (Fed. Cir. 1992) ("Conspicuously missing from this record is any evidence, other than the PTO's speculation (if that can be called evidence) that one of ordinary skill in the herbicidal art would have been motivated to make the modification of the prior art salts necessary to arrive at" the claimed invention.).

The Office Action rejects Claims 14-16 under 35 U.S.C. §103(a) as being unpatentable over *Stallings*, *Egevang* and *Phifer*. Applicants respectfully traverse these rejections for the reasons stated below.

Claim 14 is directed to a method for establishing a data socket between a server and client that includes generating a dual channel communication packet having a header and a data payload. The data payload includes an encoded port command that includes a client internal IP address and a client port number. Neither *Stallings, Egevang,* nor *Phifer*, alone or in combination, disclose, teach, or suggest each of these limitations.

The Office Action relies upon *Stallings* as disclosing, "encoding a port command ... generating a communication packet having a header ... and a data payload ... the data payload including the encoded port command." *See Office Action*, page 13. Applicants respectfully contend that the Office Action misrepresents the teachings of *Stallings*. For example, there is no disclosure, teaching, or suggestion in *Stallings* that a data payload includes an encoded port command including a client internal IP address and client port number. In fact, the Office Action concedes that the client port number of *Stallings* is "contained in [the] TCP/IP header". *See Office Action*, page 13. For at least these reasons, Applicants respectfully contend that Claim 14 is patentably distinguishable from the combination of *Stallings, Egevang,* and *Phifer*.

Claims 15 and 16 each depend from Claim 14. Therefore, Applicants respectfully contend that Claims 15 and 16 are patentably distinguishable from the combination of Stallings, Egevang, and Phifer for example, for the same reasons discussed above with regard to Claim 14.

The Office Action rejects Claims 11-13 under U.S.C. §103(a) as being unpatentable over *Borella* in view of *"Unicast Routing Overview"* by Microsoft (*"Microsoft"*). Applicants respectfully traverse these rejections for the reasons stated below.

Claim 11 is directed to a method for establishing a data socket between first and second peers that include receiving an IP packet including a port command including an encoded second peer IP address. The encoded second peer IP address is decoded and a modified port command including the a first peer address in place of the second peer IP address is generated. The modified port command is used to establish a data socket between the first and second peers. Neither *Borella* nor *Microsoft*, either alone or in combination, disclose, teach, or suggest each of these limitations.

For example, neither *Stallings* nor *Microsoft* disclose, teach, or suggest "using [a] modified port command to establish a data socket between first and second peers." For at least these reasons, Applicants respectfully contend that Claim 11 is patentably distinguishable from *Borella* in view of *Microsoft*.

The Office Action rejects Claims 12 and 13 under "similar rational" as Claim 11. However, Applicants respectfully contend that neither *Borella* nor *Microsoft*, either alone or in combination, disclose, teach, or suggest "using [a] modified port command to establish [a] transient channel between a server and a client", as required by Claim 12. Similarly, the proposed combination does not disclose, teach, or suggest that a data socket is established between first and second peers using a modified port command, as required by Claim 13. For at least these reasons, Applicants respectfully contend that Claims 11-13 are each patentably distinguishable from the references relied upon by the Office Action.

Conclusions

Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicants respectfully request full allowance of all pending Claims. If the Examiner feels that a telephone conference or an interview would advance prosecution of this Application in any manner, the undersigned attorney for Applicants stands ready to conduct such a conference at the convenience of the Examiner.

Applicants believe no fee is due. However, should there be a fee discrepancy, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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